REMARKS/ARGUMENTS

Claims 1- 5, 7-11, 13-22, 23-25, 27-30, and 39-53 are currently pending in the above-captioned application. No new claims have been added.

I. Obviousness-type Double Patenting Rejection

Claims 1 –5, 7-11, 13-15, 17-21, 23-25, 27 and 39-43 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims of copending Application No. 11/913,079. Applicants respectfully request this rejection be held in abeyance until the indication of allowable subject matter. When patentable subject matter is found in either application, Applicants will file a Terminal Disclaimer if necessary.

Claims 1 –5, 7-11, 13-15, 17-21, 23-25, 27 and 39-43 are also provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims of copending Application No.11/627,529.

Application No.11/627,529 is related to an imaging agent comprising;

a) an active nanoparticle core, wherein the active nanoparticle core comprises at least one heavy metal element in a **non-zero valent state**; and
b) a passive nanoshell disposed about the nanoparticle core.

Contrary, the present invention relates to a core of metallic tungsten, i.e. tungsten in **zero valent state**. Thus, copending Application No. 11/627,529 is directed to technology unrelated to the Applicant's claimed invention. Accordingly, Applicant respectfully requests this rejection be withdrawn.

II 35 USC §103 Rejection

Claims 1 –5, 7-11, 13-15, 17-21, 23-25, 27 and 39-43 are rejected as being unpatentable over Guillet (US 2003/0177868) in view of Mao et al. (US 6,686,308). Applicant respectfully disagrees and traverses the rejection.

The present invention relates to metallic tungsten nanoparticles for use as an X-ray contrast agent. The problem to be solved by the present invention is to develop a new X-ray contrast agent with improved properties over soluble iodine containing compounds. The Applicant's solution to the problem is the claimed particle comprising a core of the metallic element tungsten optionally together with other metallic elements wherein the core of the particle has a tungsten content of 20 to 100 weight% of metallic tungsten and wherein said core is coated with a charged coating layer to passivate the reactive surface of the tungsten particle, said coating layer comprising a polymeric layer formed from acrylic acid monomers.

Guillet relates to a method of preparing polymeric material in the form of a stable, substantially spherically nanoparticle. Particularly, Guillet is a reference teaching internally cross-linked, stable polymeric materials, in the form of substantially spherical particles, each particle consisting of essentially of a single macromolecule, having the unusual property of being soluble or dispersible in a liquid medium without significantly increasing the viscosity of the medium, rendering them potentially useful in imaging applications such as ink jet printers. The technical field is totally different from the development of new contrast agents for X-ray imaging.

In one embodiment, Guillet discloses a method for preparing nanoparticles of a metal. However, the process comprising four different steps recited in claim 17 are not similar to the process of preparing metallic tungsten particles according to the present invention. Thus, the nanoparticles provided by Guillet are not similar to the metallic tungsten particles coated with a charged coating layer to passivate the reactive surface of the tungsten particle, said coating layer comprising a polymeric layer formed from acrylic acid monomers according to the present invention.

Further, we assert that it is not obvious for a person skilled in the art to choose Guillet as a relevant prior art and as a starting point for development of new X-ray contrast agents since it does not disclose, teach , or even suggest the development of a new X-ray contrast agent.

Mao et al. is related to a supported catalyst and list that typical catalyst metals are platinum, palladium, ruthenium, rhodium, iridium, osmium, molybdenum, **tungsten**, iron and nickel – which is all common general knowledge. The present invention is not related to supported catalysts. Rather, it is related to coated metallic tungsten particles, wherein the coat passivate the reactive surface of the tungsten particle core and provide safe nanoparticles with favorable properties. It is not obvious for a person skilled in the art to choose Mao et al. as a relevant prior art and as a starting point for development of new X-ray contrast agents.

Thus, Applicant's working in the field of X-ray contrast agents would not read Guillet and Mao as relevant prior art. Secondly, made aware of the references, Applicant would not have

been motivated by the combined teaching of Guillet and Mao to come up with Applicant's claimed invention.

The combined teaching of Guillet and Mao do not render obvious the claimed particle comprising a core of the metallic element tungsten optionally together with other metallic elements wherein the core of the particle has a tungsten content of 20 to 100 weight% of metallic tungsten and wherein said core is coated with a charged coating layer to passivate the reactive surface of the tungsten particle, said coating layer comprising a polymeric layer formed from acrylic acid monomers. . Applicant's claimed invention is not anticipated by the combined teaching of Guillet and Mao et al. The applicant respectfully request the rejection be withdrawn.

The Examiner also cites Rioux et al. as a relevant prior art and is of the opinion that claims 1, 7-10, 13-15, 20, 21, 23-25, 27 and 39-43 are rejected as being unpatentable over Rioux et al. Applicant respectfully disagrees and traverses the rejection.

Rioux et al is related to a particle comprising a polymeric matrix and a ferromagnetic material **distributed in the polymeric matrix,** and is defined by the matrix **12**, the material **14** and pores **16**. Further, Rioux discloses in [0067] that the material **14** is formed of one or more radiopaque materials, and suggests tungsten, tantalum, platinum, palladium, lead gold, titanium and silver. Again, we assert that the list of radipaque materials is common general knowledge.

The particle according to the present invention is a totally different particle defined by a core of metallic tungsten with a charged coating layer to passivate the reactive surface of the tungsten particle, said coating layer comprising a polymeric layer formed from acrylic acid monomers. It is not a particle wherein the radiopaque material is distributed in the polymeric matrix. By reading Rioux, Applicant would not have been motivated to pick tungsten from the list and come up with the Applicants claimed invention. Applicant's claimed invention is not anticipated by Rioux. The applicant respectfully request the rejection be withdrawn.

CONCLUSION

Applicant respectfully holds that the claims submitted herewith fulfill the requirements of a patentable invention and that all rejections and objections be withdrawn and claims 1- 5, 7-11, 13-22, 23-25, 27-30, and 39-53 be allowed.

The Examiner is invited to telephone the undersigned in order to resolve any issues that might arise and to promote the efficient examination of the current application.

Respectfully submitted,

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